

What is claimed is:

1. An air grate comprising:  
one or more pieces of one or more materials adapted to partially cover no more than 40% of a spanned area, allowing air to flow through a plurality of openings disposed in the uncovered portion of the spanned area to meet a semiconductor device manufacturing air flow requirement, where each of the openings is sufficiently small to meet a semiconductor device manufacturing fall through object size limitation.
2. The air grate of claim 1, wherein the one or more pieces of one or more materials comprise a single molded piece of one or more materials.
3. The air grate of claim 1, wherein the one or more pieces of one or more materials comprise one or more pieces of one or more materials selected from a group consisting of aluminum, iron and steel.
4. The air grate of claim 1, wherein the semiconductor device manufacturing fall through object size limitation is about 1 inch, and the spanned area comprises a circular area with a diameter of about 15 inches.
5. The air grate of claim 1, wherein the openings are arranged in a substantially row and column manner.
6. The air grate of claim 1, wherein the semiconductor device manufacturing fall through object size limitation is about 1 inch, the spanned area comprises a circular area with a diameter of about 15 inches, the openings are arranged in a substantially row and column manner, and the one or more materials have a thickness less than 1.0 inch and a tensile strength to meet a semiconductor device manufacturing weight drop requirement of 300 lbs from a height of 2 feet.
7. The air grate of claim 1, wherein the one or more pieces of one or more materials

are further adapted to have a post installation raised height of about 0.5 inch to meet a semiconductor device manufacturing spill protection requirement.

8. The air grate of claim 1, wherein the one or more pieces of one or more materials are further adapted to cover the perimeter of the spanned area with an inwardly inclined edge to meet a semiconductor device manufacturing spill protection requirement.

9. An air grate comprising:

one or more pieces of one or more materials adapted to partially cover no more than 40% of a spanned area, allowing air to flow through a plurality of openings disposed in the uncovered portion of the spanned area to meet a semiconductor device manufacturing air flow requirement, where the one or more materials have a thickness less than 1.0 inch and a tensile strength to meet a semiconductor device manufacturing weight drop requirement of 300 lbs from a height of 2 feet.

10. The air grate of claim 9, wherein the one or more pieces of one or more materials comprise a single molded piece of one or more materials.

11. The air grate of claim 9, wherein the one or more pieces of one or more materials comprise one or more pieces of one or more materials selected from a group consisting of aluminum, iron and steel.

12. The air grate of claim 9, wherein the semiconductor device manufacturing fall through object size limitation is about 1 inch, and the spanned area comprises a circular area with a diameter of about 15 inches.

13. The air grate of claim 9, wherein the openings are arranged in a substantially row and column manner.

14. The air grate of claim 1, wherein the one or more pieces of one or more materials are further adapted to have a post installation raised height of about 0.5 inch to meet a

semiconductor device manufacturing spill protection requirement.

15. The air grate of claim 1, wherein the one or more pieces of one or more materials are further adapted to cover the perimeter of the spanned area with an inwardly inclined edge to meet a semiconductor device manufacturing spill protection requirement.

16. An air grate comprising:

one or more pieces of one or more materials adapted to partially cover a spanned area to allow air to flow through a plurality of openings disposed in the uncovered portion of the spanned area to meet a semiconductor device manufacturing air flow requirement, with the one or more pieces of one or more materials being further adapted to cover the perimeter of the spanned area with an inwardly inclined edge to meet a semiconductor device manufacturing spill protection requirement.

17. The air grate of claim 16, wherein the one or more pieces of one or more materials comprise a single molded piece of one or more materials.

18. The air grate of claim 16, wherein the one or more pieces of one or more materials comprise one or more pieces of one or more materials selected from a group consisting of aluminum, iron and steel.

19. The air grate of claim 16, wherein the semiconductor device manufacturing fall through object size limitation is about 1 inch, and the spanned area comprises a circular area with a diameter of about 15 inches.

20. The air grate of claim 16, wherein the openings are arranged in a substantially row and column manner.

21. The air grate of claim 16, wherein the semiconductor device manufacturing fall through object size limitation is about 1 inch, and the spanned area comprises a circular area with a diameter of about 15 inches, the openings are arranged in a substantially row

and column manner, and the one or more materials have a thickness less than 1.0 inch and a tensile strength to meet a semiconductor device manufacturing weight drop requirement of 300 lb from a height of 2 feet.

22. The air grate of claim 16, wherein the one or more pieces of one or more materials are further adapted to have a post installation raised height of about 0.5 inch to meet a semiconductor device manufacturing spill protection requirement.

23. A method comprising:

forming an air grate mold for use to make an air grate that simultaneously meets at least two of ((a) a semiconductor device manufacturing air flow requirement, (b) a semiconductor device manufacturing fall through object size limitation, (c) a semiconductor device manufacturing weight fall requirement, and (d) a semiconductor device manufacturing spill protection requirement); and

injecting a material into the air grate mold to create an air grate.

24. The method of claim 23, wherein the air grate meets at least three of the four enumerated requirements.

25. The method of claim 24, wherein the air grate meets all four enumerated requirements.

26. The method of claim 23, wherein the material is selected from a group consisting of aluminum, iron and steel.